

POLUKHIN, P.I., prof., doktor tekhn. nauk; YEGOROV, B.V., kand. tekhn. nauk.

Study of the relationship between lateral and longitudinal deformations during rolling with uneven drafts. Sbor. Inst. stali no.36:320-353 '57. (MIRA 10:12)

1. Kafedra prokatki Moskovskogo instituta stali im. Stalina.
(Rolling (Metalwork)) (Deformations (Mechanics))

Polukhin P.I.
POLUKHIN, P.I., prof., doktor tekhn. nauk; ASTAKHOV, I.G., dots.

Rolling of lightweight beams. Sbor. Inst. stali no.36:354-370
'57. (MIRA 10:12)

1. Kafedra prokatki Moskovskogo instituta stali im. Stalina.
(Rolling (Metalwork))

POLUKHIN, P.I.

SHOR, Emmanuil Romanovich. Prinimali uchastiye: GRANOVSKIY, S.P., kand.tekhn.nauk; SON'KIN, M.A., kand.tekhn.nauk; SOLODUKHO, Ya.Yu., inzh.; KOZLOV, B.H.; POLUKHIN, P.I., prof., doktor tekhn.nauk, retsenzent; KOROLEV, A.A., red.; OZERETSKAYA, A.L., red.izd-va; ISLENT'YEVA, P.G., tekhn.red.

[New rolling mill processes] Novye protsessy prokatki. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po cherno i tsvetnoi metallurgii, 1960. 385 p. (MIRA 13:1)

1. Gosudarstvennyy proyektyny institut Tyazhpromelektroproyekt (for Solodukho).
(Rolling (Metalwork))

SOV/137-59-3-6747

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 3, p 259 USSR)

AUTHORS: Polukhin, P. I., Gorobinchenko, V. M.

TITLE: A Novel Method for the Investigation of Speed Conditions Obtaining During Rolling (Novyy metod issledovaniya skorostnogo rezhima pri prokatke)

PERIODICAL: Sb. Mosk. in-stal, 1958, Vol 38, pp 282-297

ABSTRACT: A description of a method whereby the velocity of slippage of metal may be determined by the degree of filling in of the pass openings of the rolls by the leading end of the strip (S). The method also permits measuring the forward and backward slip of the S under stationary conditions of rolling. The method relies on the transformation of the translational motion of the S during rolling into the rotary motion of a special drum coupled to a slotted metallic disc which serves as an indicator of the distance traveled by the S. The electrical circuit consists of the loop of an oscillograph connected in series with a storage battery, a disc, and two elastic bronze springs. One of the springs slides along the solid collar of the rotating disc, while the other is pressed against an insulating ring equipped with

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SOV/137-59-3-6747

A Novel Method for the Investigation of Speed Conditions (cont.)

uniformly spaced projections. As the ring rotates, the circuit is opened and closed periodically, and the reflected light beam of the oscillograph is alternately deflected in two different directions, thus producing two broken lines on a moving film. The transformation of the translational motion into a rotational motion is accomplished with the aid of a flexible link (consisting of a thin flexible thread or a steel wire) which connects the drum with the S being rolled. The method proposed offers the following advantages: a) The possibility of obtaining an evolute of the length of the circumference of the drum representing the path traveled by the S, usually, in practical applications, a distance of considerable magnitude; b) the possibility of varying the scale of the travel indicator by means of making the diameter of the disc several times greater than the diameter of the drum.

V. D

Card 2/2

137-58-4-6993

POLUKHIN, P. I.

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 98 (USSR)

AUTHORS: Polukhin, P. I.; Zhadan, V. T.

TITLE: An Investigation of Forward Slip and Speed Factors in Roll-forming in a Sectional Pass (Issledovaniye operezheniya i skorostnykh usloviy prokatki v razreznom kalibre)

PERIODICAL: Sb. Mosk. in-t stali, 1957. Vol 36, pp 246-258

ABSTRACT: Experiments in rolling samples of 95.5x75-mm cross section of Nr 20 grade steel at $\leq 1230^{\circ}$ in a slit pass (P) on a 360 mm mill are presented. To determine the speed of the rolls (R), the readings of the track pick-up, a toothed disk fastened to the R wabblers, which closed and opened an electric circuit with the aid of brushes, were recorded on photographic film. A 50-cycle AC current sine wave was used as a time marker. The speed of the strip at the outlet was determined with the aid of a carriage moving along guide racks. Along a portion of its track, 100 mm in length, the carriage closed the circuit of an outside power source, and this identified its speed of motion within a given contact time. Templets were cut from the rolled samples, and by superimposing these on the drawing of the P the length of the line of contact of

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137-58-4-6993

An Investigation of Forward Slip (cont.)

the R was found segment by segment, and the working diameters of the R at the point of start and finish of each segment were determined. The number of revolutions of the R and the working diameters were employed to find the peripheral velocity at these points and the forward slip relative to the true speed of the strip. These data were employed to plot a chart of forward slip, the area of which, after division by the length of the line of contact, yielded the mean forward slip in the P. This latter was considerably less than the forward slip along the neck. The mean velocity of the R in the P was determined by the average working diameter by plotting a diagram in which the length of the line of contact was laid off along the axis of the abscissae and the working diameters at the points indicated along the axis of the ordinates. The same parameter was determined graphically by plotting a similar diagram in which speeds were laid off along the axis of the ordinates. The results of the calculations by the two different methods were in good agreement. The speed of the strip determined experimentally differed by 1.5-3 percent from the calculated speed, and this is testimony to the applicability of this method of determining the speed with which a strip emerges from the pass.

P. G.

1. Rolling mills--Operation
2. Rolling mills--Rolls--Speed factors

Card 2/2

MARKOVSKIY, V.Yu.; POLUKHIN, P.I.; SHASKOL'SKAYA, M.P.

Measuring the photoelastic constant of fine-grained annealed silver chloride during elastic-plastic deformations. Izv. vys. ucheb. zav.; chern. met. 7 no.3:81-86 '64. (MIRA 17:4)

1. Moskovskiy institut stali i splavov.

POLUKHIN, P.I.

POLUKHIN, P.I., prof., doktor tekhn. nauk; ZHADAN, V.T., kand. tekhn. nauk.

Investigation of the deformation of metal in flange passes. Sbor.
Inst. stali no.36:196-227 '57. (MIRA 10:12)

1. Kafedra prokatki Moskovskogo instituta stali im. Stalina.
(Rolling (Metalwork)) (Deformations (Mechanics))

MARKOVSKIY, V. Yu.; PELKHIN, P. I.; SHASKOL'SKAYA, M. P.

Investigating elastic-plastic clean bends by the optical polarization method. Izv. vys.ucheb.zav.; chern.met.7 no. 5:85-89
'64. (MIRA 17:5)

1. Moskovskiy institut stali i splavov.

POLUKHIN, P.I.

POLUKHIN, P.I., prof., doktor tekhn. nauk; ZHADAN, V.T., kand. tekhn. nauk.

Investigation of forward creep and speed of rolling in slitting
passes. Ser. Inst. stali no.36:246-258 '57. (MIRA 10:12)

1. Kafedra prokatki Moskovskogo instituta stali im. Stalina.
(Rolling (Metalwork))

POLUKHIN, P.I.

POLUKHIN, P.I., prof., doktor tekhn. nauk; ASTAKHOV, I.G., dots.

Rolling of lightweight beams. Sbor. Inst. stali no.36:354-370
'57. (MIRA 10:12)

1. Kafedra prokatki Moskovskogo instituta stali im. Stalina.
(Rolling (Metalwork))

POLUKHIN, P.I.
POLUKHIN, P.I., prof., doktor tekhn. nauk; MAKEYEV, D.I., inzh.; FEDOSOV,
N.M., dots., kand. tekhn. nauk.

Roll passes for a new type of rail chair. Sbor. Inst. stali no.36:
394-413 '57. (MIRA 10:12)

1. Kafedra prokatki Moskovskogo instituta stali im. Stalina.
(Rolling mills) (Railroads--Rails)

ACC NR: AP7002590

(A, V)

SOURCE CODE: UR/0413/66/000/023/0090/0090

INVENTORS: Polukhin, P. I.; Golubchik, R. M.; Milonnyy, K. F.; Vorontsov, V. K.

ORG: none

TITLE: An assembly for determining optically the stress-strain state of rollers and products in the process of rolling. Class 42, No. 189202

SOURCE: Izobretaniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 90

TOPIC TAGS: rolling mill, metal rolling, optic method, optic instrument, optic image, optic system, metal stress, strain, light reflection, light transmission

ABSTRACT: This Author Certificate presents an assembly for determining optically the stress-strain state of rollers and products in the process of rolling. The assembly contains a rolling mill with a base which carries driving working rollers with reducers and clamps, and also an optical assembly for either reflected or transmitted light (see Fig. 1). To produce a transverse rolling process involving two, three, or four rollers, and to produce a longitudinal rolling process involving two rollers, the rolling mill is supplied with demountable idler rollers (bars). The base is provided with openings for holding idler and working rollers in various combinations. To obtain a clear image of stresses and to shorten the length of the mill while working with equipment for the transmitted light or with interferometers, directing devices are fixed in the openings of the base. Yokes with working rollers

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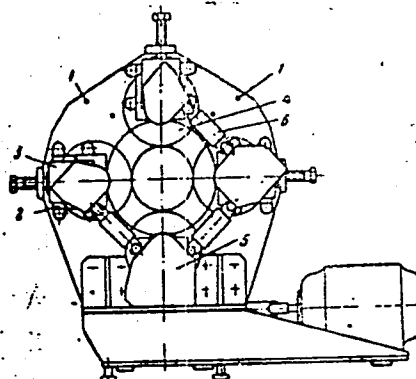
UDC: 620.1.05:539.388.22

0930

2706

ACC NR: AP7002590

Fig. 1. 1 - openings in the base; 2 - directing devices; 3 - yoke; 4 - working roller; 5 - reducer; 6 - hinged telescopic clutch



placed on brackets and carrying reducers or idle rollers (bars) are mounted in these directing devices. To produce a progressive motion of the turning rollers which compress a turning product, a telescopic hinged clutch is placed between the driving engine and the reducer of each roller. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 20Jan65

Card 2/2

ACC NR: AT7002108

(N)

SOURCE CODE: UR/0000/66/000/000/0223/0234

AUTHOR: Vorontsov, V. K.; Polukhin, P. I.

ORG: none

TITLE: The use of the photosensitive coating method for studying plastic deformation processes in metals

SOURCE: Vsesoyuznaya konferentsiya po polarizatsionno-opticheskemu metodu issledovaniya napryazheniy. 5th, Leningrad, 1964. Polarizatsionno-opticheskiy metod issledovaniya napryazheniy (Polarizing-optical method of investigating stresses); trudy konferentsii. Leningrad, Izd-vo Leningr. univ., 1966, 223-234

TOPIC TAGS: photosensitivity, plastic coating, plastic deformation, stress analysis, metal pressing, metal rolling, metal forging

ABSTRACT: Optically sensitive coatings and shapes were used to study the plastic deformation of metals in rolling and forging. Four different coatings and their properties were given for studying maximum deformations of 20%. These had the following compositions: (1) 25 g saturated polyether and 15 g maleic anhydride, (2) 25 g saturated polyether and 4 g polyethylene polyamide, (3) 50 g saturated polyether and 15 g maleic anhydride, and (4) 40 g unsaturated polyether and 15 g phthalic anhydride. The optical sensitivity of these coatings $\beta = m/ct$ ranged from 30 to 35 1/mm, where m is

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POLUKHIN, Petr Ivanovich; GROMOV, N.P., redaktor; GOLYATKINA, A.G.,
redaktor; TARISENKO, Z.K., tekhnicheskii redaktor.

[Rolling and shaping of I-beams] Prokatka i kalibrovka dvu-
tavrovyykh balok. Moskva, Gos.nauchno-tekhn. izd-vo lit-ry po
cherno i tsvetnoi metallurgii, 1956.175 p., 137 diagrams.
(Girders) (Rolling (Metalwork)) (MLRA 9:5)

KOZLOV, Nikolay Yakovlevich, inzh.; LEVANOV, Nikolay Mikhaylovich, dok. tekhn. nauk, prof.; POLUKHIN, Petr Ivanovich; KRASIL'NIKOV, Aleksey Nikolayevich; PANARIN, Nikolay Yakovlevich; FILIPPOV, Boris Ivanovich; MARTYNOV, A.F., red.; GOROKHOVA, S.S., tekhn. red.

[Technology of the manufacture of vibration rolled elements and their use in the construction industry] Tekhnologiya izgotovleniya vibroprokatnykh konstruktsei i ikh primeneniye v stroitel'stve. Moskva, Vysshaya shkola, 1963. 310 p. (MIRA 17:4)

1. Nachal'nik Spetsial'nogo konstruktorskogo byuro Prokatdetal' (for Kozlov, Levanov).

POLUKHIN, Petr Ivanovich; FEDOSOV, Naum Maksimovich; KOROLEV, Andrey Andreyevich; MATVEYEV, Yuriy Mikhaylovich; SMIRNOV, V.S., prof., doktor tekhn.nauk, retsenzent; LAUR, G.K., retsenzent; GROMOV, N.P., dotsent, kand.tekhn.nauk, red.; GOROBINCHENKO, V.M., red. izd-va; DOBUEVSKAYA, L.V., tekhn.red.

[Rolling mill practice] Prokatnoe proizvodstvo. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1960. 966 p. (MIRA 13:10)

1. Zamestitel' glavnogo inzhenera Magnitogorskogo metallurgicheskogo kombinata (for Laur).
(Rolling (Metalwork))

PHASE I BOOK EXPLANATION

SOV/3581

Polukhin, Petr Ivanovich, Doctor of Technical Sciences, and Boris Grigor'yevich
Grinberg, Candidate of Technical Sciences

Chernaya metallurgiya v semiletii (Ferrous Metallurgy in the Seven-Year Plan)
Moscow, Izd-vo "Znaniye," 1960. 32 p. (Series: Vsesoyuznoye obshchestvo
po rasprostraneniyu politicheskikh i nauchnykh znaniy. Ser. 4, No. 2,
Nauka i tekhnika) 40,000 copies printed.

Ed.: T.F. Islankina; Tech. Ed.: Ye.V. Savchenko.

PURPOSE: This booklet is intended to acquaint the reader with the progress to be made in
the field of ferrous metallurgy during the current Seven-Year Plan.

COVERAGE: The booklet describes plans for development in iron-ore treatment and
iron, steel, and rolling-mill production. No personalities are mentioned.
There are 16 references, all Soviet.

TABLE OF CONTENTS:

Introduction

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Card 1/2

ZAYKOV, Mark Andreyevich; TARNOVSKIY, I.Ya., prof., reitsenent; POLUKHIN,
P.I., prof., reitsenent; LYASHKOV, V.B., dotsent, red.; SYRCHINA,
M.M., red.izd-va; MATLYUK, R.M., tekhn.red.

[Deformations and forces in hot rolling] Rezhimy deformatsii i
usiliia pri goriachei prokatke. Sverdlovsk, Gos.nauchno-tekhn.
izd-vo lit-ry po chernoi i tsvetnoi metallurgii, Sverdlovskoe
otd-nie, 1960. 299 p. (MIRA 14:3)
(Rolling mills) (Deformations (Mechanics))

GUN, G. Ya.; POLUKHIN, P. I.

Theory of smoothly changing plastic flows. Izv. vys. ucheb. zav.;
chern, met. 7 no. 5:69-74 '64. (MIRA 17:5)

1. Moskovskiy institut stali i splavov.

POLUKHIN, P. I.; GRIGORYAN, G. G.; ZHELEZNOV, Yu. D.

Investigating the strength of roughing rolls with an axial
groove. Izv. vys.ucheb.zav.; chern.met. 7 no. 4:71-76 '64.
(MIR. 17:5)

1. Moskovskiy institut stali i splavov.

(

05420
SOV/107-59-8-40/49

AUTHOR: Polukhin, V. (Rostov-na-Donu)

TITLE: Extending the Ranges of Voltage Measurement of the
Avometer "Shkol'nyy"

PERIODICAL: Radio, 1959, Nr 8, p 54 (USSR)

ABSTRACT: The author describes a method of extending the dc measuring range of the avometer "Shkol'nyy", produced by the plant "Fizelektropribor". Normally, this avometer has a measuring range of up to 500 volts. Using the variable resistor of the instrument's ohmmeter zero setting, the measuring range may be increased above 1500 volts. This method is not suitable for ac measurements because of dial irregularities and possible breakdown of the rectifier. A note from the editor says that great measuring range increases should be avoided, since the avometer input resistance is decreased.

Card 1/1

POLUKHIN, V. A.

Polukhin, V. A.

"The Problem of Wave Pressure against the Foundations of Surrounding Structures of Vertical Type." Min Higher Education USSR. Moscow Order of Labor Red Banner Construction Engineering Inst imeni V. V. Kuybyshev. Moscow, 1955 (Dissertation for the degree of Candidate in Technical Science)

SO: Knizhnaya letopis' No. 27, 2 July 1955

POLUKHIN, V.A.

Some results of experimental studies of the effect of forced wind
waves on vertical structures. Gidrotekhnika no.2:58-67 '62.

(MIRA 16:5)

(Waves)

(Breakwaters)

ZASIMENKO, A.A.; KOLESNICHENKO, S.G.; POLUKHIN, V.A.

Combined type of wind and wave unit. Gidrotekhnika no.2:129-132
'62. (MIRA 16:5)

(Waves)

6(4,6)

SOV/111-59-9-5/31

AUTHOR: Sokolov, A.V., Chief Designer, and Polukhin, V.A.,
Chief Engineer of the Radio-Relay Line

TITLE: The Moscow-Smolensk Radio-relay Line

PERIODICAL: Vestnik svyazi, 1959, Nr 9, pp 5-7 (USSR)

ABSTRACT: This article describes the radio-relay line between Moscow and Smolensk, and presents information on tuning, operation and service of the line. The line is used for transmission of TV programs from the Moscow telecenter to the relay station Smolensk, and consists of two high-frequency trunks: one one-way trunk for image transmission and a two-way trunk for sound transmission and auxiliary communications which will also be used for multi-channel telephone communications. The line is equipped with the R-60 apparatus intended for multi-channel telephone communication over distances up to 2500 km, and TV program transmission up to 1000 km. The line, about 380 km long, includes ten stations; structure and antenna equipment of the

Card 1/3

The Moscow-Smolensk Radio-Relay Line

SCV/111-59-9-5/31

stations is briefly described as are the operating rooms at the stations (Fig 1) and at the terminal points. A block diagram of a terminal and an intermediate station is presented (Fig 2). Power sources are briefly described. Several way stations are equipped with TV relay equipment for local broadcast service. A full complement of reserve equipment is provided at each station, and the whole system of intermediate stations can be put on automatic operation (outlined). The authors outline the process of preliminary and final orientation of the antenna equipment at each station on the line, and briefly describe the thorough checking of the equipment at each station and its operation. In the course of antenna orientation it was observed that if the upper reflector of the antenna system was located higher than 70 m, a marked decrease in signal strength at the receiver input was evident; in such cases new, and larger reflectors were installed. On the basis of experience gained in these tuning operations the authors present recommendations

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The Moscow-Smolensk Radio-Relay Line

SOV/111-59-9-5/31

for the tuning procedure on similar radio-relay lines using the R-60. Some basic performance data and specifications for the RF section, image channel and sound channel are given. In conclusion the authors outline operational procedure on the radio-relay line. There are 1 photograph, 1 block diagram, and 4 graphs.

ASSOCIATION: Nauchno-issledovatel'skiy institut (NII) ministerstva svyazi SSSR (Scientific-Research Institute of the Ministry of Communications of the USSR)

Card 3/3

POLUKHIN, P.I.; POLUKHIN, V.P.; ZHELEZNOV, Yu.D.; MARKOVSKIY, V.Yu.

Investigating stresses and deformations in two-dimensional sheet
rolling mill rolls by the method of two-dimensional photoelasticity.
Izv.vys.ucheb.zav.; chern.met. 5 no.4:61-75 '62. (MIRA 15:5)

1. Moskovskiy institut stali.
(Rolls (Iron mills)) (Photoelasticity)

L 15881-66 EWP(e)/EWT(n) WH

ACC NR: AP6002805

SOURCE CODE: UR/0237/60/000/011/0018/0022

AUTHOR: Polukhin, V. N.

ORG: none

TITLE: The study of dispersion properties of glasses containing oxides of certain elements of the third and fifth groups in the Periodic Table

SOURCE: Optiko-mekhanicheskaya promyshlennost', no. 11, 1960, 18-22

TOPIC TAGS: optic glass, glass property, refractive index

ABSTRACT: Dispersive properties of optical glasses are an important factor in the design and operation of optical devices. The author studied extensively the effect of oxides on glass dispersion, specifically, the elements of the third and fifth groups in the Mendeleyev Table - Sc_2O_3 , Ti_2O_3 , As_2O_3 , Sb_2O_3 , Ta_2O_5 , and Bi_2O_3 . Samples were produced by introducing these oxides in gradually increasing amounts into two basic glasses with the composition of Na_2O -20, SiO_2 -80% wt. and Na_2O -10, SiO_2 -10, B_2O_3 -80% wt. Comprehensive tables and diagrams show the composition and physical appearance of glass, indexes of refraction

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L 15881-66

ACC NR: AP6002805

as a function of admixture content, index of refraction as a function of dispersion, and the relative dispersion quotient as a function of the dispersion coefficient. A brief discussion of the results is also given. Measurements of the optical constants were performed on an autocollimating goniometer by T. A. Strugova and T. A. Alekseyeva. Orig. art. has: 6 figures and 3 tables.

SUB CODE: 20 / SUBM DATE: 08Sep60 / ORIG REF: 001 / OTH REF: 001

Card 2/2

L 17990-66	ENP(a)/ENT(m)	WH
ACC NR: AP6007676	SOURCE CODE: 00/0413/66/000/003/0049/0049	
INVENTOR: <u>Demkina, L. I.; Polukhin, V. N.</u>		
ORG: none		
TITLE: <u>Optical glass</u> . Class 32, No. 178455		
SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 49		
TOPIC TAGS: optic glass, lanthanum containing optic glass		
<p>ABSTRACT: An Author Certificate has been issued for an optical glass based on B₂O₃, La₂O₃, PbO, ZnO₂, SiO₂, and RO [sic]. To obtain a low-crystallizability glass having a high refractive index and smaller dispersion in the blue part of the spectrum, the formulation used is: 30-55% B₂O₃; 5-30% La₂O₃; 15-60% PbO; <10% ZnO₂; <5% SiO₂, <10% RO [sic]; and in addition 5-30% Ga₂O₃; and <10% Al₂O₃. [SM]</p>		
SUB CODE: 11/ SUBM DATE: 04Jan65/ ATD PRESS: 4212		
UDC: 666.112.92 666.221.4		

Card 1/1

ALL NR: AP7002574

SOURCE CODE: UR/0413/66/000/023/0068/0068

INVENTOR: Demkina, L. I.; Polukhin, V. N.; Zimina, M. V.; Omel'chenko, G. A.

ORG: none

TITLE: Optical glass. Class 32, No. 189133

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 68

TOPIC TAGS: optic glass, refractive index, crystallization, chemical stability

ABSTRACT: This Author Certificate introduces optical glass with a high index of refraction of the order of 1.75—1.81 made with B_2O_3 , La_2O_3 , SiO_2 , CdO , Al_2O_3 , ZrO_2 , TiO_2 , and WO_3 . To increase the chemical stability of the optical glass and reduce its crystallization capacity, the above components are introduced in following amounts (%): 6—25 B_2O_3 , 13—28 La_2O_3 , 5—20 SiO_2 , 30—46 CdO , 1—3 Al_2O_3 , 1—4 ZrO_2 , not more than 6 TiO_2 , and not more than 3 WO_3 ; in addition, not more than 11 ZnO and not more than 5 Ga. [Translation] [NT]

SUB CODE: 11/SUBM DATE: 15May65/

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UDC: 666.113.831'.681'.654'.621'.82'.78'.48'.47'.28'.27

L 32746-66 EWT(m)/EWP(e) WH

ACC NR: AP6012129

(A)

SOURCE CODE: UR/0413/65/000/007/0051/0051

INVENTOR: Demkina, L. I.; Polukhin, V. N.

ORG: None

TITLE: Glass. Class 32, No. 180314 ¹⁵

SOURCE: Izobretaniya, promyshlennyye obrastay, tovarnyye znaki, no.7, 1966, 51

TOPIC TAGS: glass, glass composition

ABSTRACT: An author certificate has been issued for glass containing SiO_2 , PbO , Ti_2O_3 , Al_2O_3 , TiO_2 , K_2O , and As_2O_3 . To increase the scattering in the blue region of the spectrum, the following wt. (%) of the above components is suggested: SiO_2 , 29.0; PbO , 34.0; Ti_2O_3 , 29.7; Al_2O_3 , 2.0; TiO_2 , 3.0; K_2O or Na_2O , 2.0; As_2O_3 , 0.3.

SUB CODE: 11/ SUBM DATE: 28Nov61

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L 34408-66 EWT(1) LWP(c) 22/88

ACC NR: AP6015432

SOURCE CODE: UR/0051/66/020/005/0874/0880

AUTHOR: Polukhin, V. N. 112

ORG: none B

TITLE: Method of calculating the refractive indices²¹ of optical materials in the spectral range from 0.365 to 2.6 microns

SOURCE: Optika i spektroskopiya, v. 20, no. 5, 1966, 874-880

TOPIC TAGS: refractive index, optic material, optic dispersion

ABSTRACT: The proposed method of calculating the refractive indices n_λ of optical materials from the wavelengths in the 0.365-2.6 μ range is based on a system proposed earlier by the author for characterizing the relative variation of the dispersion of optical materials. A study of the dependence of the characteristic quantity Δn_D (change in the dispersion coefficient) on the vibration frequency of light ω showed that in the 0.365-2.6 μ range it can be expressed by equations of straight lines. Thus, the function $\Delta n_D = f(\omega)$ is assumed to be linear, and forms the basis of the calculation of the refractive indices n_λ in the visible, UV, and IR regions of the spectrum. The method permits the determination of n_λ with an accuracy commensurate with the accuracy obtained in measuring the initial refractive indices of the F, C, and D lines of the material, on which the calculation is based. The derived formulas

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UDC: 535.321

L 34408-66

ACC NR: AP6015432

0

used for the calculation are universal and applicable to substances of any chemical composition. The calculations are not time-consuming and do not require any high qualifications on the part of the user. Orig. art. has: 2 figures, 3 tables, and 5 formulas.

SUB CODE: 20/ SUBM DATE: 18Feb65/ ORIG REF: 004/ OTH REF: 001

Cord 2/2 BLG

L 32744-66 EWT(m)/EWP(e) WH

ACC NR: AP6012130

(A)

SOURCE CODE: UR/0413/66/000/007/0051/0051

INVENTOR: Demkina, L. I.; Polukhin, V. N.

ORG: None

TITLE: Glass. Class 32, No. 180315 ¹⁵

SOURCE: Izobreteniya, promyshlennyye obrastay, tovarnyye znaki, no. 7, 1966, 51

TOPIC TAGS: glass, glass composition

ABSTRACT: An author certificate has been issued for glass containing SiO_2 , PbO , Ti_2O , TiO_2 , K_2O , As_2O_3 , Sb_2O_3 . To increase the scattering in the blue region of the spectrum, the following wt. (%) of the above components is suggested: SiO_2 , 29.0; PbO , 24.0; Ti_2O , 39.7; TiO_2 , 3.0; K_2O or Na_2O_3 , 0.3; As_2O_3 , 0.3; Sb_2O_3 , 1.0.

SUB CODE: 11/ SUBM DATE: 23Sep61

Card 1/1

UDC: 666.112.4

L 32743-66 EWT(m)/EMP(e) WH

ACC NR:AP6012131

(A)

SOURCE CODE: UR/0413/66/000/007/0051/0051

INVENTOR: Demkina, L. I.; Polukhin, V. N.

ORG: None

TITLE: Glass. Class 32, No. 180316

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 51

TOPIC TAGS: glass, glass composition

ABSTRACT: An author certificate has been issued for glass containing SiO₂, PbO, Ti₂O, TiO₂, Al₂O₃, K₂O, As₂O₃, Sb₂O₃. To extend the scattering in the blue region of the spectrum, the following wt. (%) of the above component is suggested: SiO₂, 29.0; PbO, 14.0; Ti₂O, 49.7; Al₂O₃, 2.0; TiO₂, 2.0; K₂O or Na₂O, 2.0; As₂O₃, 0.3; Sb₂O₃, 1.0

SUB CODE: 11/ SUBM DATE: 28Sep61

Card 1/1 JS

UDC: 666.112.4

POLUKHIN, V. N.

"Investigation of specific and molecular refraction of silicate and boro-silicate glasses containing oxides of raw metals.

report submitted for 4th All-Union Conf on Structure of Glass, Leningrad,
16-21 Mar 64.

L 02142-67 EWP(e)/EWT(m) WH

ACC NR: AP6032503

SOURCE CODE: UR/0413/66/000/017/0062/0062

INVENTOR: Polukhin, V. N.

ORG: none

TITLE: Glass. Class 32, No. 185468 ^{1/2}

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 17, 1966, 62

TOPIC TAGS: glass, ~~low~~ refractive index, ~~low~~ crystallizability

ABSTRACT: An Author Certificate has been issued for glass with a low refractive index (1.5—1.53) and exhibiting low crystallizability. The glass has the following composition: SiO₂, 40—61%; B₂O₃, 12—36%; Al₂O₃, 3—6%; Na₂O, 7—12%; K₂O, 1.5—4%; CaO, 0.5—2%; MgO, 0.1—0.6%; BaO, 0.5—5%; and ZnO, 1—4. [B0]

SUB CODE: 11/ SUBM DATE: 28Jun65

Card 1/1 *PL*

UDC: 666.113.82-31'623'47'46'431'
'41-31'34'33'32-31'284'27-31'19

L 06283-67 EWT(m)/EWP(e) WH/CD

ACC NR: AT6027138

SOURCE CODE: UR/0000/65/000/000/0081/0084

AUTHOR: Shcheglova, Z. N.; Polukhin, V. N.

ORG: none

TITLE: Vitrification and properties of glasses in the P_2O_5 -SrO- Y_2O_3 system

SOURCE: AN SSSR, Otdeleniye obshchey i tekhnicheskoy khimii. Issledovaniya v oblasti khimii silikatov i okislov (Studies in the field of chemistry of silicates and oxides). Moscow, Izd-vo Nauka, 1965, 31-84

TOPIC TAGS: phosphate glass, strontium compound optic material, yttrium compound, glass property

ABSTRACT: The region of vitrification in the binary systems P_2O_5 - Y_2O_3 and P_2O_5 -SrO and ternary system P_2O_5 -SrO- Y_2O_3 was determined (see Fig. 1). It was shown that for all practical purposes, the limits of vitrification obtained in the binary systems and the form of the vitrification region in the three-component system practically correspond to the theoretical ones, derived from geometrical considerations concerning the distribution of atoms in the glass. Data on the optical properties of the glasses indicate that the P_2O_5 -SrO- Y_2O_3 system can be used as the base for preparing glasses with high Abbe numbers (higher than those of corresponding silicate and borate glasses). It was noted that the chemical stability of binary strontium glasses containing high P_2O_5 concentrations (above 75.0 mole %) was low. The crystallization tendency of

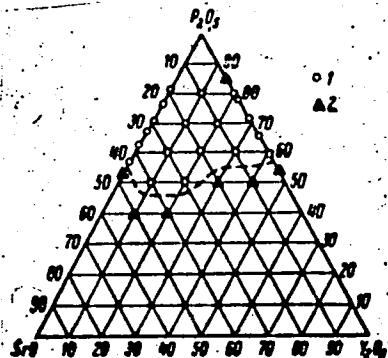
Card 1/2

L 06283-67

ACC NR: AT6027138

these glasses was high. Orig. art. has: 1 figure and 2 tables.

Fig. 1. Diagram of vitrification in the P_2O_5 - SrO - Y_2O_3 system. 1 - glass without signs of crystallization; 2 - no glass is formed.



SUB CODE: 11/ SUBM DATE: 11May64/ ORIG REF: 002/ OTH REF: 002

Card

2/2 *gd*

POIUKHIN, V.P., kand.takhn.nauk; ZINOV'YEV, A.V., inzh.

Effect of the axial hole on the elastic compression of rolls. Vest.
mashinostr. 45 no.9:26-29 S '65. (MIRA 18:10)

POLUKHIN, V.P., kand. tekhn. nauk

Design of flat needle mechanisms of overseaming sewing machines.
Nauch.-issl. trudy VNIITTEKMASH, no. 11:73-83 '64.

(MIRA 18:6)

L 2999-66 EWT(m)/ENF(t)/ENP(b) JD

ACCESSION NR: AP5013321

UR/0148/65/000/005/0057/0064 53
669.1:621.731 52
B

AUTHOR: Polukhin, P. I.; Gun, G. Ya.; Polukhin, V. P.; Prudkovskiy, B. A.;
Korolev, V. M.

TITLE: Adaptation of the electrohydrodynamic analogue method to the theory of
metal processing under pressure

SOURCE: IVUZ. Chernaya metallurgiya, no. 5, 1965, 57-64

TOPIC TAGS: plastic flow, mathematic model, metallurgic process, pressure casting

ABSTRACT: The application of the theory of complex variables to plastic flow during metal processing was studied by the mathematical modeling of potential fields. In particular, the method of electrohydrodynamic analogues was found to be directly applicable to metal processing theory. Three specific cases are considered: the general theory of plane-parallel plastic flow, the drawing of profiles of intricate form, and the pressing of profiles of intricate form. Plastic flow equations are given for plane-parallel flow in terms of complex variables, utilizing a mathematically postulated Q-plane, which allowed approximate calculations to be made for the energy and strength parameters of the process. The flow pattern is presented,

Card 1/2

L 2999-66

ACCESSION NR: AP5013321

along with a parametric plot of the Q-plane. For the case of the drawing of intricate shapes, a similar approach was given. A deformation function $\phi = \phi(x, y)$ is used to calibrate a draw plate; this function is determined by solving a Laplacian in x and y for specified boundary conditions. Results are given for $1-\phi$, calculated at the center of the draw plate, as a function of degree of deformation. For the final case, pressing of profiles of intricate shape, a further innovation is made in the general mathematical treatment, by using $\vec{v} = v_x + i v_y$

to describe the velocity field. A complex potential is calculated, and the flow behavior of a thin walled pressing is described. Flow lines are sketched and shown to be equivalent to those obtained during metal processing. Orig. art. has: 6 figures.

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 22Jan65

ENCL: 00

SUB CODE: MM, ME

NO REF SOV: 009

OTHER: 000

Card 2/2 *Ad*

PODOLKIN, V.F., kand. tekhn. nauk; ZINOV'YEV, A.V., inzh.

Measuring elastic deformations in machine parts. Vest. mashinostr.
45 no.6:3-7 Ju '65. (MIRA 18:6)

L 61914-65 EWT(d)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/
EWP(b)/EWP(l)/EWA(c) Pf-4/2s-4 JD/HW/EM
ACCESSION NR: AP5017689

UR/0133/65/000/007/0622/0628
621.771.0

AUTHOR: Tselikov, A. I.; Polukhin, V. P.; Polyashov, V. S.; Meyerovich, I. M.

TITLE: Increasing the stiffness of rolling mill housings in connection with the improvement in precision of the sheet rolling process

SOURCE: Stal', no. 7, 1965, 622-628

TOPIC TAGS: rolling mill, elastic deformation, mathematical analysis, pressure measurement, mechanical engineering, housing

ABSTRACT: The stiffness of rolling mill housings is analyzed in terms of the additive elastic deformations of the various elements of the housing, for the purpose of improving the housing stiffness. Experiments were conducted on a contemporary four-high mill of simple design, using a 1700 type housing, with working rolls of 650 mm diameter and supporting rolls of 1700 mm diameter; the maximal tolerance for the force of the metal on the rolls was 2100 T. Data are given for the elastic deformation of different portions of the mill (measured by a strain gauge) as a function of mill pressure. A diagram is shown for the force distribution acting on the

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L 61914-65

ACCESSION NR: AP5017689

3

mill rolls and bearings. Also, the pressure acting on the work rolls and on the supporting rolls is analyzed and presented; this was subtracted from the total pressure and the housing pressure was determined. Experimental data are presented for the elastic deformations of the housing elements and compared with calculated values. These were summed to give the total housing deformation as a function of mill pressure. Mechanical formulas are presented, incorporating the mill variables, and an equation is given for the coefficient of stiffness in terms of the pressure and elastic deformation of the housing elements. It was concluded that this method of increasing the precision of the rolling process should result in improved economy in production. Orig. art. has: 8 figures, 4 tables.

ASSOCIATION: VNIIMETMASH; Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 00

ENCL: 00

SUB CODE: IE, MM

NO REF SOV: 007

OTHER: 000

Card 2/2 *gk*

POLUKHIN, V.P.; NIKOLAYEV, V.A.; KALASHNIKOV, P.P.

Modeling contact and contact area stresses for the case of flat
rolling. Izv. vys. ucheb. zav.; Chern. met. 8 no. 6:101-107 '65.
(MIRA 18:8)

1. Moskovskiy institut stali i splavov.

POLUKHIN, V.P.; ZINOV'YEV, A.V.; TERESHKO, A.K.; LOSEV, K.F.

Elastic compression of the working rolls on four-high mills. Izv.
vys. ucheb. zav.; chern. met. 8 no.7:120-123 '65. (MIRA 18:7)

1. Moskovskiy institut stali i splavov.

POLOKHIN, V.P., kand. tekhn. nauk, ZINOV'YEV, A.V., kand. fiz.-mat. nauk,
Inzh.

Simultaneous measurement of contact stresses and deformations
during rolling. Izv. vys. ucheb. zav.; mashinost. no.6:
144-149 '68. (MIRA 1968)

POLUKHIN, V.P., kand.tekhn.nauk; ZINOV'YEV, A.V., inzh.; ZUBANOV, B.S., inzh.

Effect of the axial channel in working rolls on the elastic
deformation of four-high rolling mill rolls. Stal' 25 no.5:
435-437 My "65. (MIRA 18:6)

1. Moskovskiy institut stali i splavov.

POLUKHIN, V.P.; ZINOV'YEV, A.V.

Determining the actual specific pressure in rolling. Izv. vys.
ucheb. zav.; Chern. met. 8 no.9:117-121 '65. (MIRA 18:9)

1. Moskovskiy institut stali i splavov.

POLUKHIN, P.I.; POLUKHIN, V.P.; ZHELEZNOV, Yu.D.

Comparative analysis of elastic compression of rolls on a four-high mill and cylinders according to Gerts. Izv. vys. ucheb. zav.; chern. met. 5 no.5:115-119 '62. (MIRA 15:6)

1. Moskovskiy institut stali.

(Rolls (Iron mills))
(Deformations (Mechanics))

ZHELEZNOV, Yu. D., inzh.; POLUKHIN, V. P., inzh.

Using the optical polarization method for the investigation
of strains and elastic deformations of rolling mill rolls.
Sbor Inst. stali i splav. no.40:251-263 '62. (MIRA 16:1)

(Rolls(Iron mills)—Testing)
(Deformations(Mechanics)—Testing)

POLUKHIN, V. P.

Analysis of elastic flattening of four-high mill rolls. Izv.
vys. ucheb. zav.; Chern. met. 5 no.12:88-94 '62.
(MIRA 16:1)

1. Moskovskiy institut stali i splavov.

(Rolls(Iron mills))
(Deformations(Mechanics))

POLUKHIN, P.I.; ZHELEZNOV, Yu.D.; POLUKHIN, V.P.; RADYUKEVICH, L.V.;
PRATUSEVICH, I.I.; NIKOLAYEV, V.A.

Effect of technological factors on roll grooving for thin sheet
mills. Stal' 23 no.2:146-152 F '63. (MIRA 16:2)

1. Moskovskiy institut stali i splavov i Magnitogorskiy
metallurgicheskiy kombinat.
(Rolls (Iron mills))

DAMASKIN, B.I.; POBOL', O.N.; POLUKHIN, V.P.. (Moskva)

Investigating the effect of the drive system of sewing machines
on their efficiency. Shvein. prom. no. 6:10-14 N-D '65.
(MIRA 18:12)

POLUKHIN, P. I., prof., doktor tekhn. nauk; ZHELEZNOV, Yu. D., inzh.;
POLUKHIN, V. P., inzh.; KOZLOV, O. F., inzh.

Criteria for the durability of rolls on cold rolling mills.

Sbor. Inst. stali i splav. no.40:210-218 '62.
(MIRA 16:1)

(Rolls(Iron mills))

POLUKHIN, P. I., prof., doktor tekhn. nauk; ZHELEZNOV, Yu. D., inzh.;
POLUKHIN, V. P., inzh.; MARKOVSKIY, V. Yu., inzh.

Heat balance in the performance of five-stand cold rolling
mills. Sbor. Inst. stali i splav. no.40:219-224 '62.
(MIRA 16:1)

(Rolling mills) (Heat)

POLUKHIN, P.I.; NIKOLAYEV, V.A.; RADYUKEVICH, L.V.; ZHELEZNOV, Yu.D.;
POLUKHIN, V.P.

Increasing the output of the 1200 continuous mill. Metallurg
8 no.5:18-19 My '63. (MIRA 16:7)

1. Moskovskiy institut stali i splavov i Magnitogorskiy
metallurgicheskiy kombinat.
(Rolling mills)

PAVLOV, I. M.; POLUKHIN, P. I., prof., doktor tekhn. nauk;
ZHELEZNOV, Yu. D., inzh.; POLUKHIN, V. P., inzh.

Photoelastic method for the investigation of stresses in rolls
and in the strip during rolling. Sbor. Inst. stali i splav.
no.40:264-276 '62. (MIRA 16:1)

1. Chlen-korrespondent AN SSSR (for Pavlov).

(Rolling(Metalwork)) (Photoelasticity)

POLUKHIN, V.P., aspirant; ZAK, I.S., inzh.

Effect of the speed of sliding on the thread tension in a sewing machine. Nauch. trudy MTILP no.24:227-232 '62. (MIRA 16:7)

1. Kafedra mashin i apparatov legkoy promyshlennosti Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.
(Sewing machines--Testing)

POLUKHIN, P.I.; POLUKHIN, V.P.; ZHELEZNOV, Yu.D.; SKORUPSKIY, V.I.

Use of volumetric component models in the study of the strength of
rollers by an optical method. Zav.Lab. 29 no.8:990-992 '63.
(MIRA 16:9)

1. Moskovskiy institut stali i splavov.
(Rolls (Iron mills)—Testing)

ZAK, I.S.; POLUKHIN, V.P.

Thread performance in chain-stitch sewing machines. Shvein.
prom. no.6:21-24 N-D '63. (MIRA 17:2)

POLUKHIN, V.P.; ZHELEZNOV, Yu.D.

Effect of the roughing roll diameter on the efficiency of a
four-high, cold rolling sheet mill. Izv. vys. ucheb. zav.;
chern. met. 5 no.7:103-109 '62. (MIRA 15:8)

1. Moskovskiy institut stali i splavov.
(Rolling mills)

POLUKHIN, V.P.; ZHELEZNOV, Yu.D.; ZINOV'YEV, A.V.

Elastic deformations of rolls on a four-high mill. Izv. vys. ucheb.
zav.; chern. met. 5 no.9:143-149 '62. (MIRA 15:10)

1. Moskovskiy institut stali i splavov. Rabota vypolnena pod
rukovodstvom prof. doktora tekhn. nauk P.I. Polukhina i chlena-korres-
pondenta AN SSSR I.M. Pavlova.

(Rolls (Iron mills))

(Deformations (Mechanics))

POLUKHEN, V.P.; SKORUMSKIY, V.I.; NIKOLAYEV, V.A.

Pressure between rolls and the elastic deformation of rolls in the
2800 four-high rolling mill. Izv. vys. shkoly. fiz. mat. nat. 7
no.12:93-99 1974 (MIRA 18:1)

1. Moskovskiy Institut stal i splosh.

POLUKHIN, P.I.; POLUKHIN, V.P.; NIKOLAYEV, V.A.; GUN, G.Ya.

Polarization optical method of investigating contact stresses
in the rolling process. Izv. vys. ucheb. zav.; Chern. met. 7
no.12:52-58 '64 (MIRA 18:1)

1. Moskovskiy institut stali i splavov.

POLUKHIN, V.E.; SKORUPSKIY, V.I.; POLYASHOV, V.S.; KALASHNIKOV, P.F.

Optimal hardness and the elastic deformation of rolls on
four-high mills. Izv. vys. ucheb. zav.; Chern. met. 8 no.1:
78-84 '65 (MIRA 18:1)

1. Moskovskiy institut stali i splavov.

ZHELEZNOV, Yu.D.; POLUKHIN, V.P., prof., doktor tekhn.nauk

Investigating contact stresses in the rolls of a multiple-roll
mill. Izv.vys.ucheb.zav.; chern.met. 4 no.5:85-97 '61.
(MIRA 14:6)


1. Moskovskiy institut stali.
(Rolling mills) (Strains and stresses)

1.1300

28066
S/148/61/000/007/005/012
E193/E380

AUTHORS: Polukhin, P.I., Zheleznov, Yu.D. and Polukhin, V.P.
TITLE: Ways of increasing the operating efficiency of tandem
thin-sheet rolling mills

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya
metallurgiya, no. 7, 1961, pp. 101 - 104

TEXT: The most difficult problem in continuous thin-sheet
rolling is to ensure uniform thickness of the product across
its width. The conventional method of cambering is not quite
satisfactory since in the case of a particular set of rolls it
is effective only within a very narrow range of roll forces.
The object of the present paper was to discuss alternative means
of solving this problem. The authors refer to their earlier
study (Ref. 1 - this journal, 1960, No. 11) of stresses and
strains in a 4-high mill by an optical method. It was found then
that the deformation of the work rolls was a sum total of bending
of the back-up roll and flattening of both work and back-up rolls
along the line of contact. The resultant effect of these two
types of deformation can vary, depending upon the D_r/D_o : 
Card 1/5

28066

S/148/61/000/007/005/012
E193/E380

Ways of increasing

B/L and E_r/E_o ratios, where D_r and D_o are the diameters of the work and back-up rolls, respectively. E_r and E_o are their elastic properties and B and L are the dimensions of the strip. In practice, B/L is fixed but D_r/D_o and E_r/E_o can be varied. Since, however, the diameter of the work rolls can be increased to a limited extent only, a real solution can be found only by constructing the rolls in such a way that the deformation due to flattening is equal in magnitude and opposite in sign to that due to bending. This can be achieved by using back-up rolls whose rigidity varies from a maximum in the middle to a minimum near the edges, such as the composite rolls of the type illustrated in Fig. 2. The roll shown in Fig. 2a consists of a cylindrical steel sleeve fitted onto a barrel-shaped roll; the sleeve fits closely on the middle portion of the roll. The rolls shown in Fig. 2b and Fig. 2c have two concentric sleeves whose cross-section varies from the middle of the rolls outwards. The outer sleeve is made of steel and the inner one of a material with an elastic modulus lower than that of the

Card 2/5

28066

S/148/61/000/007/005/012

E193/E380

Ways of increasing

roll material (cast iron can be used for this purpose). Such rolls can be made either by pouring cast iron in the space between roll and outer sleeve (Fig. 26), or by preheating the sleeves and shrinking them onto the roll (Fig. 28). The shape of the inner sleeve will depend on the diameter and length of the roll. Composite rolls of the above type offer several advantages: 1 - they ensure uniform thickness of the finished product, particularly when long (up to 2 500 mm) rolls are used which have a very large L/D ratio; 2 - setting of the rolls is simplified since uniformly thick sheet can be produced under conditions of widely differing drafts, thus saving time and facilitating automation; 3 - since setting of the rolls is less critical and easier to adjust, higher rolling speeds can be employed; 4 - heavier drafts can be used, provided that a more effective lubricant is used at the same time, so that thinner tinplate can be produced; 5 - the frequency of strip breakage due to incorrect roll setting is greatly reduced, whereby the output of the plant and life of the rolls are increased. I.M. Pavlov and Ya.S. Gallay are mentioned in the article.

Card 3/5

28066

S/148/61/000/007/005/012

E193/E380

Ways of increasing

There are 2 digures and 3 Soviet references.

ASSOCIATION: Moskovskiy institut stali (Moscow Institute
of Steel)

SUBMITTED: February 21, 1961

Card 4/5

POLUKHIN, V.P.

Calculating pressures between rolls and the deflection of the
rolls on four-high rolling mills. Izv. vys. ucheb. zav.; chern.
met. 6 no.11:101-108 '63. (MIRA 17:3)

1. Moskovskiy institut stali i splavov.

POLUKHIN, V.P., aspirant

Types of the mechanisms of overcasting machine loopers. Nauch.-
trudy MTILP no.23:190-197 '61. (MIRA 15:9)

1. Kafedra mashin i apparatov legkoy promyshlennosti Moskovskogo
tekhnologicheskogo instituta legkoy promyshlennosti.
(Sewing machines)

POLUKHIN, P.I.; ZHELEZNOV, Yu.D.; POLUKHIN, V.P.

Optical method of studying strains and deformations of the
rolls on a four-high rolling mill. Izv. vys. ucheb. zav.;
chern. met. no. 11:71-80 '60. (MIRA 13:12)

1. Moskovskiy institut stali.

(Rolls (Iron mills)--Testing)

(Deformations (Mechanics)--Testing)

POLUKHIN, P.I.; ZHELEZNOV, Yu.D.; POLUKHIN, V.P.

Durability of rolls on mills for the continuous cold rolling of thin sheet. Izv. vys. ucheb. zav.; chern. met. 4 no.7:121-128 '61. (MIRA 14:8)

1. Moskovskiy institut stali.
(Rolls(Iron mills))

POLUKHIN, V.P.; ZHELEZNOV, Yu.D.; SKORUPSKIY, V.I.

Effect of rolled sheet width and roll grooving on the strength
and elastic deformation of rolls on four-high mills. Izv.vys.
ucheb.zav.; Chern.Met. 5 no.11:106-112 '62. (MIRA 15:12)

1. Meskovskiy institut stali i splavov.
(Rolls (Iron mills))

POLUKHIN, V.P.

Simultaneous effect of the diameter of the working roll and the width of the strip being rolled on the distribution of pressure between rolls and the deflection of rolls on four-high rolling mills. Stal' 24 no.3:145-148 F '64. (MIRA 17:9)

1. Moskovskiy institut stali i splavov.

POLUKHIN, V.P., aspirant; NIKIFOROV, V.M., student

Thread tension in an overcasting sewing machine. Nauch. trudy
MTILP no 28:179-187 '63. (MIRA 17:11)

1. Kafedra mashin i apparatov Moskovskogo tekhnologicheskogo
instituta legkoy promyshlennosti.

POLUKHIN, P.I.; NIKOLAYEV, V.A.; POLUKHIN, V.P.; GROGORYAN, G.G.

Determining the flattened arc of bite in sheet rolling. Izv.
vys. ucheb. zav.; chern. met. 7 no.7:125-131 '64.

(MIRA 17:8)

1. Moskovskiy institut stali i splavov.

GUN, G.Ya.; POLUKHIN, P.I.; PRUDKOVSKIY, B.A.; POLUKHIN, V.P.

Some problems in the theory of the extrusion process in
assymetrical and multiple-hole dies. Izv. vys. ucheb. zav.;
chern. met. 7 no.10:70-74 '64. (MIRA 17:11)

1. Moskovskiy institut stali i splavov.

POLUKHIN, P.I., doktor tekhn. nauk, prof.: ZHELEZNOV, Yu.D., kand. tekhn. nauk; ANTSIFEROV, V.G., inzh.; REIZOV, N.S., inzh.; SAKHARIN, N.N., inzh.; NIKOLAYEV, V.A., inzh.; TERESHKO, A.K., inzh.; POLUKHIN, V.P., kand. tekhn. nauk

Investigating the strength of the connecting rod of slabbing-mill shears. Vest. mashinostr. 43 no.10:13-17 O '63.

(MIRA 16:11)

8/133/63/000/002/007/014
A054/A126

AUTHORS: Polukhin, P.I., Zheleznov, Yu.D., Polukhin, V.P., Radyukevich, L.V.
Pratusevich, I.I., Nikolayev, V.A.

TITLE: The effect of technological factors on the profile section of thin
strip mill rolls

PERIODICAL: Stal', no. 13, 1963, 146 - 152

TEXT: This problem has been studied at the Magnitogorskiy metallurgicheskii kombinat (Magnitogorsk Metallurgical Combine), on continuous 1,200 mm four-high cold rolling mill rolls and 1,450 mm hot rolling mill rolls, in 1961 - 1962. The article is a summarizing report on the theoretical and experimental research relating to the changes of the profile section of work rolls and backing rolls due to heat effects (convexity at the center of the roll surface), to wear and tear of the rolls, etc. Measures to prevent these phenomena involve the balancing of heat effects by modifying the intensity of cooling accordingly, preferably with an automatic regulation, by means of a pickup signaling the distribution of expansion over the width of the strip and ensuring that cooling at the edge parts is more intense than the heat release. For backing rolls this can be obtained

Card 1/2

POLUKHIN, P.I.; GUN, G.Ya.; POLUKHIN, V.P.; PRUDKOVSKIY, B.A.; KOROLEV, V.M.

Using the method of electrohydrodynamic analogies in the theory of metalworking by pressure. Izv. vys. ucheb. zav.; Chern. met. 8 no.5:57-64 '65. (MIRA 18:5)

1. Moskovskiy institut stali i splavov.

POLUKHIN, V.P.; ZINOV'YEV, A.V.; TERESHKO, A.K.

Elastic deformation of a disk under the effect of various systems
of loading. Izv.vys.ucheb.zav.; Chern. met. 8 no.4:102-106 '65.
(MIRA 18:4)

1. Moskovskiy institut stali i splavov.

GUN, G.Ya.; POLUKHIN, P.I.; PRUDKOVSKIY, B.A.; POLUKHIN, V.P.; YERMANOK, M.Z.

Calculating strain hardening and the temperature field
during extrusion. Izv. vys. ucheb. zav.; tsvet. met. 8
no.4:134-139 '65. (MIRA 18:9)

1. Kafedra tekhnologii i avtomatizatsii prokatnogo proizvodstva
Moskovskogo instituta stali i splavov.

POLUKHIN, P.I.; PEDOS, H.F.; RADYUKEVICH, L.V.; ZHELEZNOV, Yu.D.;
POLUKHIN, V.P.

Increasing the efficiency of roll performance in the cold rolling
of thin sheet. Stal' 21 no.10:916-920 0 '61. (MIRA 14:10)
(Rolls (Iron mills))

POLOKHIN, P.I.; SKORUMSKY, V.I.; SHELDONOV, A.I.; ANISIMOV, I.I.

Investigating the strength of banked rolls with rollers
having an irregular fit. Izv. vyz. Odesk. univ. 1979, no. 8
8 no. 11:93-98 165. (MIRA 18:11)

1. Maskoverdy inzhinirov skob i splavov.

L 12119-66 EWP(e)/EWT(m)/EWP(b)
ACC NR: AT6000471

GS/WH
SOURCE CODE: UR/0000/65/000/000/0083/0087

AUTHOR: Polukhin, V. N.

ORG: None

TITLE: Specific and molar refraction of silicate and borosilicate glasses containing rare earth oxides

SOURCE: Vsesoyuznoye soveshchaniye po stekloobraznomu sostoyaniyu. 4th, Leningrad, 1964, Stekloobraznoye sostoyaniye (Vitreous state); trudy soveshchaniya. Leningrad, Izd-vo Nauka, 1965, 83-87

TOPIC TAGS: silicate glass, borate glass, refractive index, glass property, scandium compound, yttrium oxide, lanthanum oxide, thallium compound, arsenic compound, zirconium compound, antimony compound, tantalum compound, bismuth compound

ABSTRACT: The refractive indices n_d and densities d of oxides of scandium, yttrium, lanthanum, thallium, arsenic, zirconium, antimony, tantalum, and bismuth in silicate and borosilicate glasses were measured. The oxides were introduced in regularly increasing amounts into "initial" glasses of the following two compositions (in wt. %): (1) Na₂O 10%, B₂O₃ 80%, SiO₂ 10%, and (2) Na₂O 21%, SiO₂ 79%.

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L 12119-66

ACC NR: AT6000471

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From the values obtained, the specific refraction was calculated by using the Gladstone-Dale formula

$$r_d = \frac{n_d - 1}{d}$$

and the molar refraction was obtained from the Lorentz-Lorenz formula

$$R_d = \frac{n_d^2 - 1}{n_d^2 + 2} M$$

The values of r_d and R_d thus calculated are tabulated. The dependence of T_d on the weight content a and of R_d on the molar content m of oxides of Sc, V, In, La, Ti, Zr, As, Sb, Ta, and Bi was found to be close to linear. Optic refraction measurements were made by T. A. Alekseyeva and T. A. Strugova. Orig. art. has: 2 figures, 2 tables, and 2 formulas. 4/455 4/455

SUB CODE: 07, 11 / SUBM DATE: 22May65 / ORIG REF: 002

Card 2/2

ZHDANOV, Sergey Mikhaylovich, kand.tekhn.nauk; MAKAROV, Viktor Matveyevich;
SHESTAKOV, Aleksandr Leonidovich; POLUKHIN, V.P., red.; KOROOGODIN,
A.S., red.izd-va; NAZAROVA, A.S., tekhn.red.

[Automatic fire-protective signaling system] Avtomaticheskaya
pozharная signalizatsiya. Moskva, Izd-vo M-va kommun. khoz.RSFSR,
1960. 159 p. (MIRA 14:2)

(Fire alarms)

S/0286/64/000/004/0012/0013

ACCESSION NR: AP4021210

AUTHOR: Kudryavtsev, A. S.; Polukhin, P. I.; Karpov, S. P.; Polukhin, V. P.;
Golubchik, R. M.; Geniyev, A. N.

TITLE: A method for internal shaping (calibration) of sheet mill rolls. Class 7,
No. 160496

SOURCE: Byul. izobret. i tovarn. znakov, no. 4, 1964, 12-13

TOPIC TAGS: sheet metal shaping, sheet metal profiling, sheet metal calibration,
sheet metal roller mill, sheet mill roll

ABSTRACT: This authorship certificate introduces a method for internal profiling
(gauging) of sheet mill rolls. In order to produce sheets with more accurate
geometrical dimensions and to increase the work life of the rolls, the roll
profiling (calibration) is done on the interior surface. 2. A method on this same
system which uses ready-made rolls. A material which has a low melting point in
comparison with the roll metal and predetermined physical properties is used to
flood the interior cavity of the roll.

Card 1/2

ACCESSION NR: AP4021210

ASSOCIATION: none

SUBMITTED: 17Jan63

DATE ACQ: 01Apr64

ENCL: 00

SUB CODE: ML

NO REF SOV: 000

OTHER: 000

Card 2/2

POLUKHIN, Yu.F.

Machines for cutting sockets for metal hardware in window
and door frames. Der. prom. 14 no.5:4-5 My '65.

(MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut derevoobrabatyvayushchey promyshlennosti.